Enhancing Curriculum Development: Balancing AI Efficiency with Professional Judgement

PROBLEM OF PRACTICE

How can educators effectively partner with AI tools to enhance the efficiency of curriculum development while upholding professional judgment and pedagogical integrity? Alberta's curriculum redesign demands high-quality resources. AI offers support, but without a shared framework, practices vary. The district is exploring how educators can co-design with AI, ensuring efficiency without compromising depth, intentionality, or instructional integrity.

Elk Island Public Schools

Organization:	**Elk Island Public Schools**
Province:	Alberta
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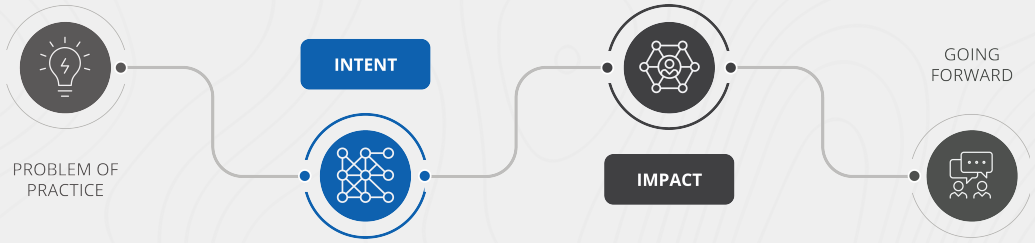
Lead:	**Jonathon Thomas**, Project Co-ordinator



Intent

The Elk Island team is exploring how AI tools can be used to enhance the efficiency and quality of curriculum resource development during Alberta's curriculum redesign. The goal is to leverage AI's strengths—such as summarizing texts, generating drafts, translating content, and organizing ideas—while ensuring that instructional integrity, curriculum alignment, and professional judgment remain central to the process.

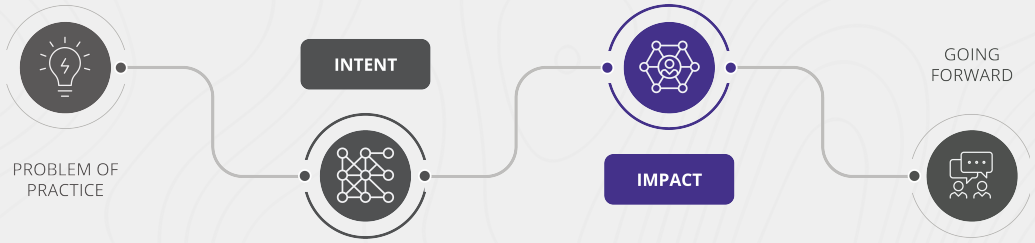
This initiative is rooted in the belief that educators' pedagogical expertise must guide AI integration. The intent is not just to speed up workflow, but to create the conditions for more intentional, student-centered curriculum design. By automating or accelerating low-level tasks, AI can free educators to focus on decisions that require their training, context knowledge, and instructional insight—such as differentiating for student needs, sequencing learning, and choosing strategies that reflect local priorities.

Educators are positioned as co-designers, not passive users, and are using AI to support rather than replace their decision-making. Teachers are actively testing tools like Brisk, MagicSchool, Google NotebookLM, Teacher Time Machine, and ChatGPT, with a focus on:

- Generating rubrics, multiple-choice items, and summary materials
- Drafting story-based or creative lesson elements adapted for age and developmental needs
- Translating or scaffolding content for multilingual classrooms
- Comparing outputs across platforms to evaluate clarity, curriculum fit, and quality

This use case is also about building AI literacy and ethical discernment. Teachers are learning to prompt more effectively, identify when AI outputs require modification, and maintain authorship and pedagogical voice. The district aims to build shared frameworks and workflows that guide responsible, efficient AI use—not just for today's project, but as a sustainable foundation for future curriculum work.

> "The AI provides the raw materials, the diverse options, but it's my expertise that filters, adapts, and ultimately selects the resources that will best serve my students. Ultimately, the goal isn't to have AI dictate our curriculum or deliver our lessons. It's about leveraging its capabilities to amplify our own strengths. It's about using AI as a tool to streamline our workflows, broaden our perspectives, and free us to be the thoughtful, creative, and responsive educators our students deserve."
>
> *—Stacey Robinson*
> *AI Reflection*
> *Elk Island Educator*



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The Elk Island team has made significant progress in addressing their central challenge: how to partner with AI tools in ways that increase curriculum development efficiency while upholding professional judgment and pedagogical integrity.

Through diverse, thoughtful experimentation across K–12, educators engaged deeply with the guiding question of the use case. Their submissions reflect both breadth and depth—demonstrating not only what AI can do, but how professional educators choose to use it.

Responding to the Problem of Practice: The team did not approach AI adoption as a technical fix, but as a professional inquiry. Educators embraced AI tools as design collaborators, using them to remove bottlenecks—such as drafting rubrics, translating texts, or organizing content—while safeguarding the instructional quality that only educators can provide. This approach allowed them to work more efficiently without compromising intention, creativity, or context.

AI tools became accelerators for reflection, not replacements for pedagogical thinking. Teachers consistently described using AI to "get started," followed by critical refinement to ensure student-centered learning, curriculum alignment, and clarity.

Breadth of Participation and Experimentation: Submissions came from across the grade spectrum—K–6, 7–9, and 10–12—and included core subjects and specialists in French, Music, Literacy, and more. Teachers used tools such as Brisk, ChatGPT, MagicSchool, NotebookLM, and Teacher Time Machine, often combining tools to test which best supported their instructional goals.

Instructional and Pedagogical Impact:

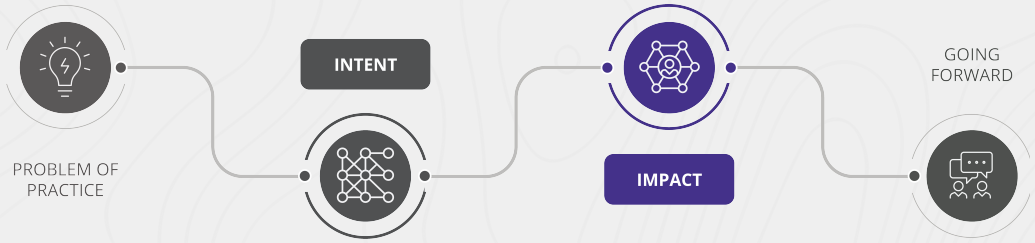
Assessment Development: Teachers used AI to generate rubrics and low-stakes assessments, then modified them to reflect outcomes, differentiate expectations, and maintain clarity.

Example: A high school teacher created an AI-assisted math rubric, customizing it for weighting and alignment with provincial standards.

Creative and Multimodal Resource Design: In Music and Elementary contexts, AI helped draft scripts, movement stories, or podcast outlines—resources that were then reworked to suit student age, language level, or creative goals.

Teachers highlighted how AI saved time but required "humanizing" for tone, authenticity, and engagement.

Tool Comparison and Evaluation: One teacher conducted a side-by-side tool comparison for the same task, documenting differences in output quality, clarity, and usefulness—an approach that built both personal discernment and peer learning.



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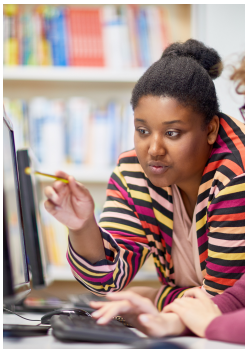
Themes from Educator Reflections

AI as a Professional Partner: Teachers saw AI as a time-saving catalyst, but never as a final authority. Outputs were consistently reviewed, adapted, and contextualized. Educators leaned into their instructional voice and experience to transform AI drafts into meaningful learning tools.

Key Strengths Reported:

- Acceleration of initial drafts
- Support for breaking down complex tasks
- Help with organizing or summarizing large bodies of content



Limitations Acknowledged:

- AI often lacked creativity, nuance, or full curriculum alignment
- Substantial editing was needed to ensure clarity and context fit
- Some teachers worried about potential over-reliance, especially for less experienced colleagues

Highlighted Exemplars:

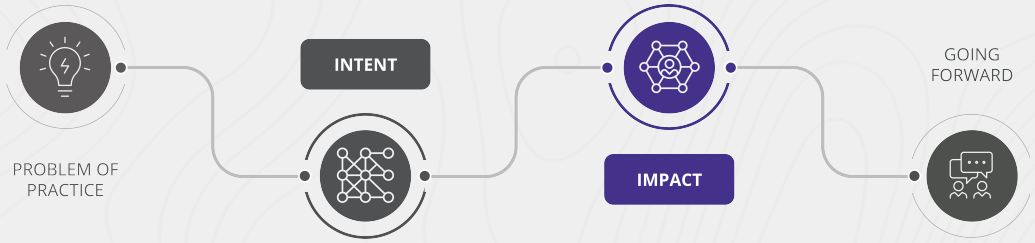
- Creative Movement Story (Elementary): AI-generated content served as a base, revised by the teacher for developmental fit and narrative pacing.
- Tool Comparison Task: An educator tested multiple AI platforms on the same curriculum task, evaluating and documenting outputs to guide their tool selection.
- French Decodables (Brisk): Used to generate early reading texts for French learners, followed by teacher revision to ensure accurate scaffolding.

- AI for Assessment Design: Teachers used tools like MagicSchool and ChatGPT to create distractors, quiz formats, or rubrics—then edited these to reflect deeper learning goals.

System-Level Learning:

- Teachers began articulating a local "ethic of use," raising questions around authorship, data privacy, and sustainable practice.
- Reflections surfaced the need to mentor early-career educators on how to critically engage with AI, rather than default to its suggestions.
- The initiative has seeded conversations about how to embed AI literacy, ethical use, and shared workflows into long-term curriculum and professional learning plans.

This use case catalyzed a shift from isolated experimentation to intentional, collaborative practice. Educators used AI to streamline their workflow—but more importantly, they reclaimed time to deepen their pedagogical choices. In doing so, they modeled how emerging tools can be integrated without compromising professional standards or the central role of the teacher. This balance of innovation and integrity is the lasting impact of Elk Island's approach.



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Professional Learning insights

Professional learning for this use case combined structured opportunities with flexible, peer-driven support. The goal was not just to build AI tool fluency, but to foster a mindset of critical experimentation grounded in instructional integrity.

PL Structure and Supports

- **Whole-Group Learning Sessions:** Two after-school virtual sessions brought together all participating educators. These meetings surfaced early questions, showcased use cases from different subject areas, and created space for shared learning around how AI could be applied with intention across grade levels.
- **Ongoing Coaching and Support:** The district's Educational Technology Consultant (Jon Thomas) provided smaller group and one-on-one support throughout the cycle. These sessions allowed teachers to test specific tools, receive feedback on implementation, and reflect on challenges or insights in context.
- **Shared TEAMS Hub:** An active Microsoft TEAMS space functioned as a collaborative hub where educators shared AI outputs, prompt strategies, reflections, and tool evaluations. This asynchronous space enabled sustained dialogue across schools and grade bands and gave participants a living archive of examples and insights to draw from.

What Worked Well

Flexible structure: Teachers appreciated the ability to experiment at their own pace while having access to guidance when needed.

Real-world relevance: PL sessions centered on actual classroom scenarios and artifacts, which made learning concrete and directly transferable.

Professional voice: Teachers valued being treated as co-researchers, not passive recipients of new tools or mandates. This fostered a strong sense of agency and ownership over their learning process.

Areas for Growth

- **Clarity on ethical boundaries:** Some educators sought more explicit guidance on copyright, authorship, and responsible AI integration.
- **Confidence in evaluation:** While many teachers engaged deeply, there remained uneven confidence in how to assess AI outputs—especially among newer or less tech-experienced staff.
- **Purposeful tool selection:** Teachers expressed interest in developing a clearer framework for which tools are best suited for particular instructional goals (e.g., translation vs. assessment design vs. ideation).

Overall, professional learning helped move participants from casual exploration to intentional, pedagogically aligned experimentation. The combination of collective learning, individualized support, and ongoing collaboration created a foundation not just for tool use—but for sustained instructional growth in an AI-enhanced environment.

Going Forward

Building on the momentum of this initial phase, Elk Island plans to extend and deepen its use of AI in curriculum design through a focus on sustainability, shared practice, and system-wide capacity building.

Planned Next Steps

- **Developing Shared Frameworks**: The team will begin codifying workflows, decision-making protocols, and use-case examples into a shared framework that can guide responsible and effective AI use across the division. This will include exemplars that highlight how educators exercise professional judgment when working with AI-generated content.
- **Expanding AI Literacy:** There is strong interest in continuing professional learning focused on discerning AI use—especially how to evaluate outputs, refine prompts, and align tools to specific curriculum tasks. The team also plans to address topics such as authorship, equity, and ethical boundaries more explicitly.
- **Mentoring and Peer Support:** As confidence grows among early adopters, there is an opportunity to create mentorship pathways where experienced users can support others in their schools or subject areas. The TEAMS hub will continue to serve as a central space for knowledge exchange and collaboration.
- **Tool Access and Evaluation:** Participants expressed a desire to explore additional tools, such as Google Gemini, and to establish clearer criteria for selecting tools based on pedagogical purpose. Comparative evaluations from this cycle will inform future decision-making and support resource planning at the district level.
- **Linking to Broader District Goals:** The initiative aligns with division-wide priorities around curriculum redesign and innovation. Going forward, Elk Island will explore how to integrate this work into long-term curriculum planning cycles and support broader AI integration efforts across departments.

The team involved in this exploration is committed to growing not just tool familiarity, but a lasting culture of reflective, ethical, and innovative practice—one where AI supports, but never replaces, the professional expertise of educators.

Resources

- Elk Island AI in Teaching & Learning Submissions - Overview
- Elk Island AI in Teaching - Project Examples